

# A study of the genus *Xylotrechus* Chevrolat (Coleoptera: Cerambycidae) from Beijing, China

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**Abstract:** Ten species of the genus *Xylotrechus* Chevrolat, 1860 from Beijing are studied. *Xylotrechus pekingensis* Pic, 1939 is reinstated from synonym of *Xylotrechus yanoi* Gressitt, 1934, and newly recorded from Hebei and Shaanxi Provinces. *Xylotrechus bifenestratus* Pic, 1916 is proposed as a new junior synonym of *Xylotrechus polyzonus* (Fairmaire, 1888), both were described from Beijing, China. Three species, *X. ibex* (Gebler, 1825), *X. pyrrhoderus* Bates, 1873, and *X. robusticollis* (Pic, 1936), are reported from Beijing for the first time. Several new localities are added to the related species based on specimens examined. A key to the ten species of *Xylotrechus* Chevrolat, 1860 from Beijing is provided.

**Key words:** Cerambycinae; Clytini; taxonomy; new synonym; new record

## 北京的脊虎天牛属分类研究（鞘翅目：天牛科）

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**摘要:** 对分布于北京的 10 种脊虎天牛属甲虫开展了分类研究, 恢复了北京脊虎天牛 *Xylotrechus pekingensis* Pic, 1939 的地位, 不再是宽带脊虎天牛 *Xylotrechus yanoi* Gressitt, 1934 的异名, 报道了本种在河北和陕西的新分布记录。提出双带脊虎天牛 *Xylotrechus bifenestratus* Pic, 1916 是四带脊虎天牛 *Xylotrechus polyzonus* (Fairmaire, 1888) 的新异名, 两者的模式标本均产自北京。本文还报道了 3 种北京新记录种: 显纹脊虎天牛 *X. ibex* (Gebler, 1825)、葡脊虎天牛 *X. pyrrhoderus* Bates, 1873 和黑胸脊虎天牛 *X. robusticollis* (Pic, 1936)。通过检视标本, 很多新的分布信息被加入到相关的种类。最后本文提供了分布于北京的 10 种脊虎天牛属甲虫的分种检索表。

**关键词:** 天牛亚科; 天牛族; 分类; 新异名; 新记录

## Introduction

Three species of *Xylotrechus* Chevrolat, 1860 were described from Beijing: *Clytus polyzonus* Fairmaire, 1888, *Xylotrechus bifenestratus* Pic, 1916, and *Xylotrechus pekingensis* Pic, 1939. *Xylotrechus pekingensis* Pic, 1939 was synonymized with *Xylotrechus yanoi* Gressitt, 1934 by Gressitt (1951). Gressitt (1951) recorded three species from Beijing: “*X. chinensis*, *X. polyzonus* and *X. yanoi*”. Hua (2002) did not separate Beijing from Hebei specimens except for *X. yanoi*. Löbl & Smetana (2010) only marked “BEI” for one species, *X. yanoi*, while for *X. bifenestratus*, they did not provide any detailed locality, only “CH”. Lin (2017) included four species from Beijing among the 15 species from Shaanxi, by adding *X. rufilius*. Chen *et al.* (2019) recorded five species from Beijing, by adding *X. hircus* while missing *X. rufilius*, while Yu (2020) also recorded five species, by adding *X. dominula* and *X. grayii* but missed *X. bifenestratus* and *X. rufilius*. Viktora (2020a) also reported *X. dominula* from Beijing. Danilevsky (2020) included four species from Beijing, “*X. bifenestratus*, *X. hircus*, *X. polyzonus* and *X. yanoi*”. Thus, there have been eight species recorded from Beijing before this research.

In this paper, we synonymize *Xylotrechus bifenestratus* Pic, 1916 with *Xylotrechus polyzonus* (Fairmaire, 1888), newly report *X. ibex* (Gebler, 1825), *X. pyrrhoderus* Bates, 1873 and *X. robusticollis* (Pic, 1936) from Beijing, and record several new localities for species occurring in Beijing. Finally, we provide a key to the ten species distributed in Beijing.

## Material and methods

Type specimens and specimens studied are deposited in the following institutions, museums or private collections:

BJFU — Beijing Forestry University, Beijing, China  
BMNH (= NHML) — Natural History Museum, London, UK  
BPBM — Bernice Pauahi Bishop Museum, Honolulu, USA  
CAU — China Agricultural University, Beijing, China  
CCGY — private collection of Guanyuan CAO, Beijing, China  
CJC — private collection of Chen JIN, Beijing, China  
CQNU — Chongqing Normal University, Chongqing, China  
CSJ — private collection of Jian SUN, Beijing, China  
CWC — private collection of Chao WU, Beijing, China  
CYXR — private collection of Xiaoran YANG, Beijing, China  
CSHL — private collection of Hongliang SHI, Beijing, China  
CZDK — private collection of Dakang ZHOU, Beijing, China  
EIHU — Entomological Institute, Hokkaido University, Sapporo, Japan  
IZCAS — Institute of Zoology, Chinese Academy of Sciences, Beijing, China  
KMNHO — Kanagawa Prefectural Museum of Natural History, Odawara, Japan  
MNHN — Muséum national d'Histoire naturelle, Paris, France  
NSMT — National Science Museum (Natural History) = National Museum of Nature and Science, Tokyo, Japan  
NWAFU — Northwest A&F (Agriculture and Forestry) University, Yangling, Shaanxi, China

SWU — Collection of Insects, Southwest University, Chongqing (ex Southwest Agricultural University), Chongqing, China

ZIN (= ZMAS) — Russian Academy of Sciences, Zoological Institute (Musée de Zoologie de l'Académie des Sciences de Saint-Pétersbourg), Saint Petersburg, Russia

ZMUM — Moscow State University (= Zoological Museum, University of Moscow), Moscow, Russia

In addition, TD — Type depository and TL — Type locality.

## Taxonomy

### ***Xylotrechu* Chevrolat, 1860**

*Clytus (Xylotrechus)* Chevrolat, 1860: 456. Type species: *Clytus sartorii* Chevrolat, 1860, designated by Thomson, 1861: 221.

*Xylotrechus*: Thomson, 1861: 221.

Remarks. The genus *Xylotrechus* Chevrolat, 1860 is divided into five subgenera and 256 species/subspecies (Tavakilian & Chevillotte 2021), with four subgenera and 74 species/subspecies distributed in China (Chen *et al.* 2019). Viktora, the most active author of Clytini research in the Palaearctic and Oriental regions recently (Viktora 2020a, b, c, Viktora 2021), synonymized *Xylotrechus* (s. str.) *vomeroi* Pesarini *et* Sabbadini, 2015 with *Xylotrechus apiceinnotatus* Pic, 1937, synonymized *Xylotrechus multisignatus* Pic, 1915, *Xylotrechus lateralis fracturis* Guo *et* Chen, 2002 and *Xylotrechus* (s. str.) *triangulifer* Pesarini *et* Sabbadini, 2015 with *Xylotrechus lateralis* Gahan, 1906 (Viktora 2020b), described *Xylotrechus gratus* Viktora, 2020 and *Xylotrechus petrae* Viktora, 2020 from Sichuan (Viktora 2020a), and described *Xylotrechus kucerae* Viktora, 2021 from Shaanxi (Viktora 2021). Niisato (2020) deleted *Xylotrechus emaciatus* Bates, 1884 from China (Guangxi) since it was endemic to Japan and the Guangxi report was based on a misidentification. There have been 77 species/subspecies reported from China up to March 10, 2021.

Distribution (Chen *et al.* 2019). China, Mongolia, D. P. R. Korea, R. O. Korea, Japan, Ryukyu Islands, Vietnam, Laos, Cambodia, Thailand, India, Myanmar, Nepal, Bhutan, Sri Lanka, Philippines, Malaysia, Singapore, Indonesia, Bangladesh, Pakistan, Afghanistan, Iran, Tajikistan, Uzbekistan, Turkmenistan, Kyrgyzstan, Kazakhstan, Russia (Siberia), Turkey, Azerbaijan, Georgia, Cyprus, Syria, Armenia, Israel, Russia (Europe); Europe, Africa, Australia, Oceania, North America, South America.

#### 1. *Xylotrechus (Xyloclytus) chinensis chinensis* (Chevrolat, 1852) (Figs 1, 2)

*Clytus chinensis* Chevrolat, 1852: 416. TL: China: Shanghai. TD: BMNH.

*Xylotrechus chinensis*: Chevrolat, 1863: 313; Cheo, 1935: 12; Hua, 2002: 236.

*Xylotrechus chinensis* var. *laterufescens* Pic, 1913: 19. TL: China: Taiwan (Formosa). TD: MNHN.

*Xylotrechus sekii* Matsushita, 1936: 146. TL: China: Taiwan (Formosa, Kuraru). TD: EIHU.

*Xylotrechus chinensis* var. *griseofasciatus* Pic, 1943: 1. TL: China. TD: MNHN.

*Xylotrechus (Xyloclytus) chinensis*: Gressitt, 1951: 238; Löbl & Smetana, 2010: 181.

*Xylotrechus (Xyloclytus) chinensis chinensis*: Lin, 2017: 192, pl. 16, fig. 4; Chen *et al.*, 2019: 173; Danilevsky, 2020: 251.

*Xylotrechus (Xyloclytus) chinensis kurosawai* Fujita, 2010: 30, figs 2–17. TL: Japan. TD: KMNHO. Synonymized by Niisato, 2020: 19.

**Specimens examined.** Beijing, 1♂ (Fig. 1), Xicheng Dist., Xijiaogongyuan, 09-VI-1952, leg. Yiran ZHANG (IZCAS); 1♀, same data but 20-VI-1952; 1♀, same data but 15-VII-1952; 1♀, Xicheng Dist., Beihai, host: *Morus alba*, IX-1944 (IZCAS); 1♀, Haidian Dist., Zhongguancun, VII-1982 (IZCAS, IOZ(E) 1904766); 2♂2♀, Haidian Dist., Xishan, 06-VII-2018, leg. Chao WU (CWC); 1♀, Haidian Dist., Beijing botanical garden, Fanghuodao, before 2020, leg. Chen JIN (CJC); 1♂, Mentougou Dist., 11-VII-1957 (IZCAS); 1♀, Mentougou Dist., 581 m, 115.70536°E, 40.01711°N, 25-VII-2017, leg. Siyu GONG (CAU); 1♀, Mentougou Dist., Zhaojiawacun, 08-VII-2020, leg. Jian SUN (CSJ); 1♀ (Fig. 2), Miyun Dist., Shichengzhen, Lishugoucun, Wuzuoloulinchang, 26-VIII-2015, collected larva and emerged in lab, leg. Meiyiing LIN (IZCAS); 1♀, Beijing, host: branches of *Morus alba*, 15-VII-1955 (IZCAS); 1♀, same data but 10-VII-1957; 4♂2♀, Beijing, host: branches of *Morus alba*, 01-VIII-1957 (IZCAS); 2♂1♀, same data but 04-VIII-1957; 1♀, Beijing, 01-VIII-1957 (IZCAS); 1♀, Beijing, 26-VI-1973, leg. Zhen PAN (IZCAS); 1♀, Peking (IZCAS). Shandong: 1♀, Jinan, 14-IX-1934 (IZCAS). Shaanxi: 1♂, Zhen'an, 09-VII-1960 (IZCAS, IOZ(E) 1899816); 1♀, Xi'an, 25-VI-1981 (IZCAS); 1♀, Zhen'an, host plant: *Morus alba*, 17-VIII-1962 (NWAFU). Jiangsu: 1♀, Soochow (= Suzhou), VIII-1923 (IZCAS); 1♀, Ihing (= Yixing), 03-VIII-1933, coll. O. Piel (IZCAS). Shanghai: 1♂, Shanghai, 05-VII-1919 (IZCAS); 1♀, Zi-ka-wei (= Xujiahui), 08-VI-1922 (IZCAS). Zhejiang: 3♀, Huchow, 25-VII-1934 (IZCAS). Hong Kong: 1♀, Hong Kong (IZCAS).

**Distribution.** China: Liaoning, Beijing (Xicheng Dist., Haidian Dist., Mentougou Dist., Miyun Dist.), Tianjin, Hebei, Shanxi, Shandong, Henan, Shaanxi, Gansu, Jiangsu, Shanghai, Anhui, Zhejiang, Hubei, Jiangxi, Fujian, Taiwan, Guangdong, Hong Kong, Guangxi, Sichuan, Yunnan, Xizang; D. P. R. Korea; R. O. Korea; Japan.

**Host plant.** *Morus alba* (Moraceae), *Morus bombycyls* (Moraceae), *Pyrus malus* (Rosaceae) (Cheo 1935; Gressitt 1951), *Vitis vinifera* (Vitaceae), *Malus pumila* (Rosaceae) (Hua 2002).

**Remarks.** Cheo (1935) first recorded this species from Peiping (= Beijing). Gressitt (1951) cited Cheo and was followed by Lin (2017) and Chen *et al.* (2019), but was missed by Hua (2002) and Danilevsky (2020).

## 2. *Xylotrechus (Xylotrechus) robusticollis* (Pic, 1936) (Figs 3, 4)

*Clytus robusticollis* Pic, 1936: 4. TL: China (Jiangxi). TD: MNHN.

*Xylotrechus robusticollis*: Gressitt, 1940b: 70; Gressitt, 1951: 250; Hua, 2002: 237; Lin, 2017: 199, pl. 16, fig. 10.

*Xylotrechus (Xylotrechus) robusticollis*: Löbl & Smetana, 2010: 183; Chen *et al.*, 2019: 177; Danilevsky, 2020: 254.

**Specimens examined.** Beijing: 1♂ (Fig. 4), Mentougou Dist., Baihuashan, 1800 m, 26-VII-1985 (IZCAS); 1♂, Fangshan Dist., Shangfangshan, 400 m, 19-VII-1961, leg. Shuyong WANG (IZCAS). Hebei: 2♂ (Fig. 3), Qinhuangdao, Zushan, 11-12-VIII-2003 (IZCAS). Shaanxi: 1♀, Ziyang County, 08-VII-1964 (IZCAS); 1♂, Ankang, VI-1980 (NWAFU). Hubei: 1♂, Xuan'en, Xiaoguan, 900 m, 03-VIII-1984, leg. Shuyong WANG (IZCAS). Jiangxi: 2♂2♀, Ku-Ling (= Guling), 18-VII-1935, coll. O. Piel (IZCAS); 4♀, same data but 19-VII-1935; 2♂2♀, same data but 20-VII-1935; 2♂4♀, Ku-Ling (= Guling), 22-VII-1935, coll. O. Piel (IZCAS); 3♂1♀, same data but 23-VII-1935; 2♂, same data but 25-VII-1935; 3♂4♀, Ku-Ling (= Guling), 26-VII-1935, coll. O. Piel (IZCAS); 6♂2♀, same

data but 27-VII-1935; 3♂4♀, same data but 29-VII-1935; 1♂2♀, same data but 30-VII-1935; 1♀, same data but 01-VIII-1935; 1♀, same data but 03-VIII-1935; 1♂2♀, same data but 05-VIII-1935; 2♀, same data but 06-VIII-1935; 1♀, same data but 07-VIII-1935; 1♀, same data but 13-VIII-1935; 1♀, same data but 20-VIII-1935; 1♀, Jiujiangshi, Lushanfengjingqu, 28-VI-2006, leg. Hongbin LIANG, Ye LIU & Sota (IZCAS); 1♂, Lushan, 24–26-VII-2004 (CSHL); 2♂, Lushan, VII-2003, leg. Cheng DENG(CSHL).

**Distribution.** China: Beijing (new record, Mentougou Dist., Fangshan Dist.), Hebei (new record), Liaoning, Shaanxi, Hubei, Hunan (new record), Jiangxi, Sichuan, Guizhou.

**Host plant.** Adults on *Spiraea* (Rosaceae) and *Lindera* (Lauraceae) (Gressitt 1951; Hua 2002).

**Remarks.** It is recorded from Beijing and Hebei for the first time, based on specimens deposited in IZCAS. It is also newly recorded from Hunan Province, based on a picture from Hunan, Taoyuan County, Wuyunjie Nat. Rev. through Dr. Guohua HUANG (personal communication in Feb. 2021).

### 3. *Xylotrechus (Xylotrechus) ibex* (Gebler, 1825) (Figs 5A, 5B)

*Clytus ibex* Gebler, 1825: 53. TL: Russia. TD ZIN.

*Clytus rectangulus* Motschulsky, 1875: 149. TL: Russia. TD: ZMUM. Synonymized by Plavilstshikov, 1915: 79.

*Clytus angulosus* Motschulsky, 1875: 150. TL: Russia. TD: ZMUM. Synonymized by Plavilstshikov, 1915: 79.

*Clytus fugitives* Thieme, 1881: 100. TL: Russia: Siberia, Amur. TD: unknown. Synonymized by Kraatz, 1881: 336.

*Xylotrechus ibex*: Ganglbauer, 1882: 728; Hua, 2002: 236; Xu & Neng, 2007: 75, 1 fig.; Lin, 2017: 195.

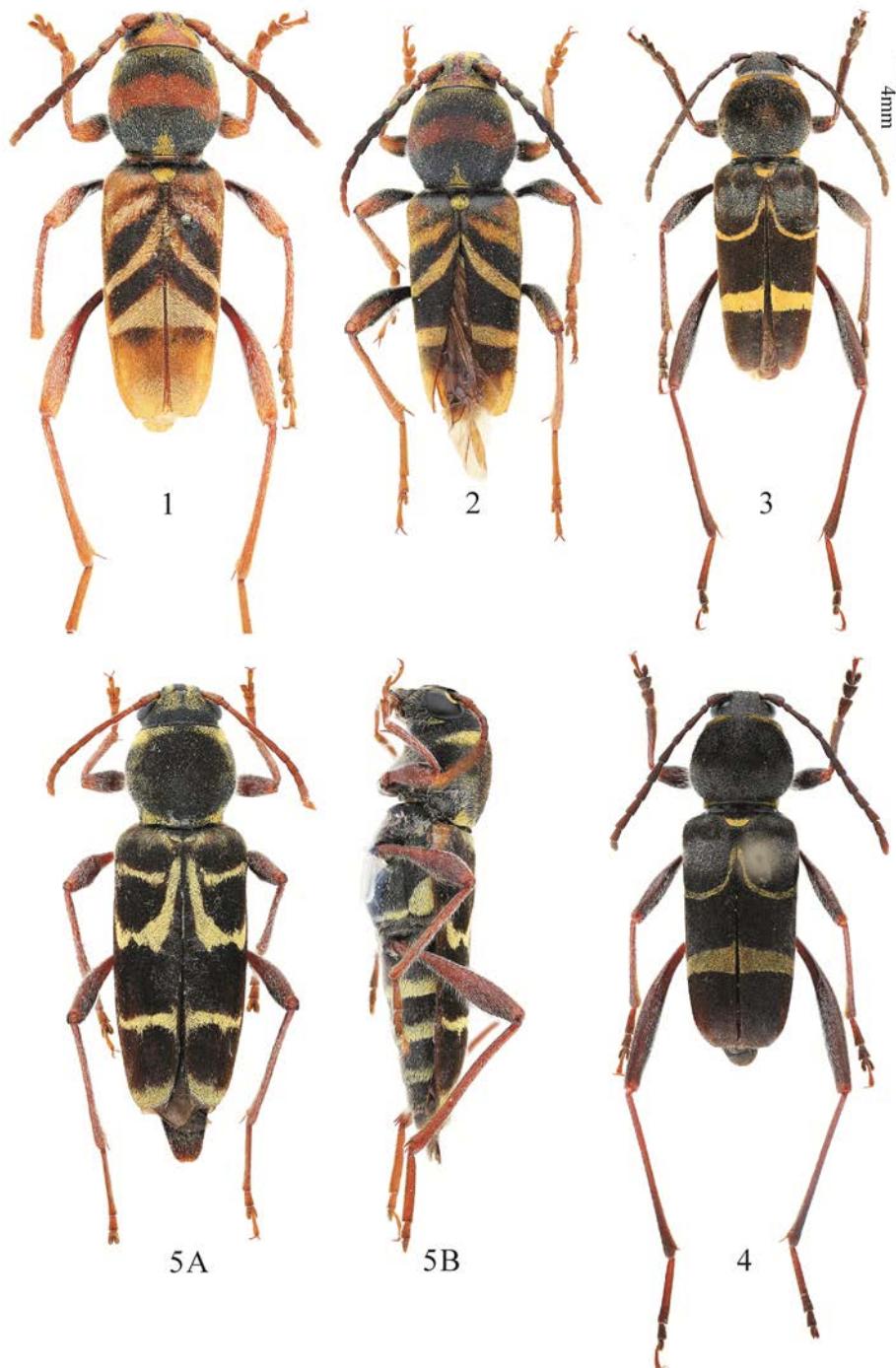
*Xylotrechus (Xylotrechus) ibex*: Gressitt, 1951: 244; Löbl & Smetana, 2010: 182; Chen *et al.*, 2019: 175; Danilevsky, 2020: 253.

**Specimens examined.** Heilongjiang: 1♀, Dailing, 18-VII-1956 (IZCAS); 1♀, Dailing, 25-V-1957 (IZCAS); 1♂, same data but 14-VI-1956; 1♂, Dailing, Liangshuigou, 26-VII-1956 (IZCAS); 1♀, Harbin, 29-VI-1945 (IZCAS); 2♂, Yichun, 14-VI-1956 (IZCAS); 1♂, same data but 18-VII-1956; 1♂, Yichun, host: *Betula platyphylla*, 30-V-1957 (IZCAS). Jilin: 1♂, Shangying, 20-VI-1982, leg. Boan WEI (IZCAS). Liaoning: 1♀, Gaolingzi, 14-VII-1940 (IZCAS); 1♂, same data but 10-VII-1942; 2♂2♀, Gaolingzi (IZCAS). Beijing: 1♀, Haidian Dist., Beijing Forestry University, 01-IV-2014, leg. Zhiliang WANG (IZCAS). Ningxia: 1♀, Lingwu County, 13-VI-1981 (IZCAS); 1♀, Lingwu County, host: *Betula platyphylla*, 11-VII-1981 by light trap (IZCAS).

**Distribution.** China: Heilongjiang, Jilin, Liaoning, Inner Mongolia, Beijing (new record, Haidian Dist.), Shaanxi, Ningxia, Gansu, Xinjiang, Hunan, Fujian, Guangdong, Sichuan; Mongolia; Kazakhstan; Russia (Siberia); Russia (Europe); Europe.

**Remarks.** *Xylotrechus ibex* (Gebler, 1825) and *X. clarinus* Bates, 1884 were mixed together easily, since their pubescent markings are the same (Xu & Neng 2007). T. Niisato believed that true relation between *X. ibex* and *X. clarinus* is geographical races of the same species (Niisato, 2021-April-11, personal communication), while M. L. Danilevsky considered them as different species, distinguished from each other by their different shapes of prothorax (Danilevsky, 2021-March-24, personal communication). In any case, the specimens from Beijing and NE China should be identified as *Xylotrechus ibex* (Gebler, 1825), whose pronotum is quite rounded (Fig. 8). The distribution records from Hunan, Fujian, Guangdong

and Sichuan (Chen et al. 2019) are very doubtful.



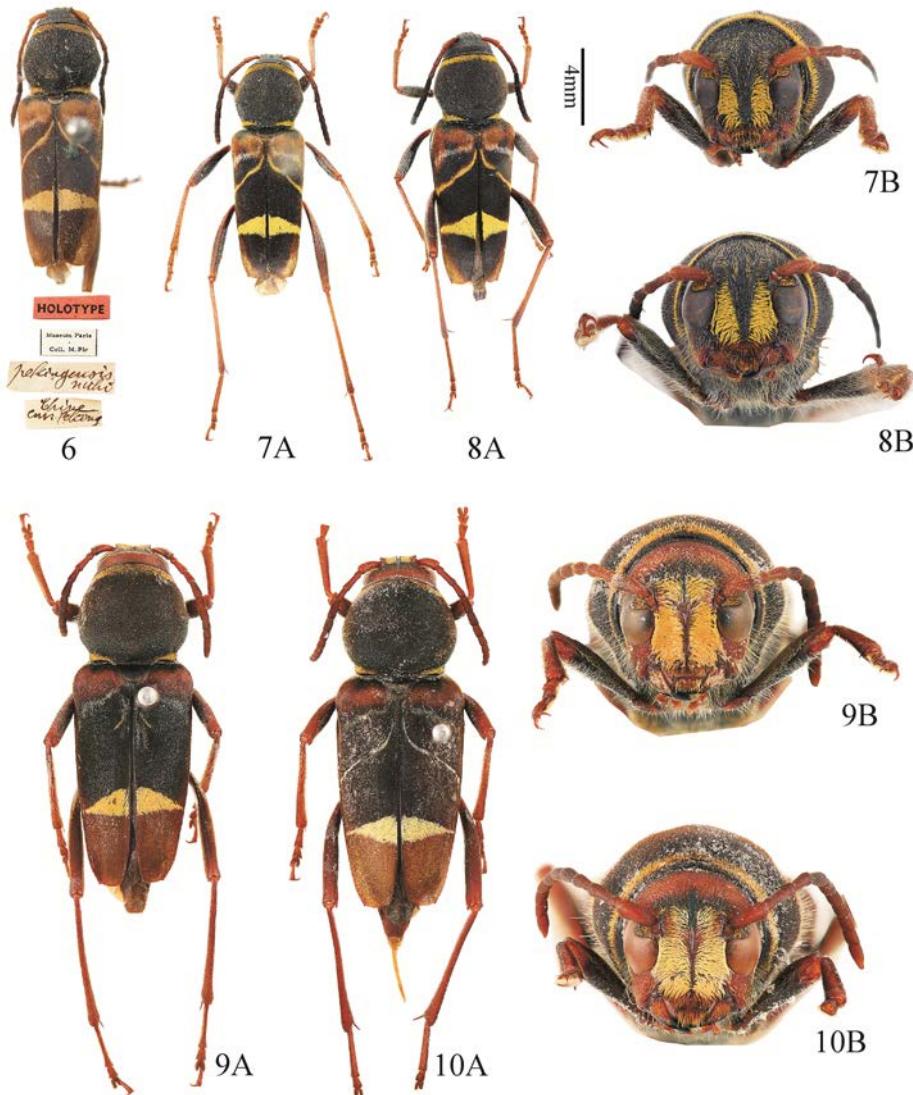
Figures 1–5. *Xylotrechus* spp. 1, 2. *X. chinensis* (Chevrolat, 1852); 1. ♂, from Beijing, Xicheng Dist.; 2. ♀, from Miyun Dist.; 3, 4. *X. robusticollis* (Pic, 1936); 3. ♂, from Hebei, Qinghuangdao; 4. ♂, from Beijing, Mentougou Dist.; 5. *X. ibex* (Gebler, 1825), ♀, from Beijing, Haidian Dist. A. Dorsal view; B. Lateral view.

4. *Xylotrechus pekingensis* Pic, 1939 stat. reinstated (Figs 6–8)

*Xylotrechus pekingensis* Pic, 1939: 3. TL: China (Beijing). TD: MNHN.

*Xylotrechus (Xylotrechus) yanoi*: Gressitt, 1951: 252 (part); Hua, 2002: 237 (part); Löbl & Smetana, 2010: 183 (part); Chen *et al.*, 2019: 178 (part); Danilevsky, 2020: 255 (part).

*Xylotrechus yanoi*: Yu, 2020: 255, 1 fig.; Lin, 2017: 200, pl. 17, fig. 2.



Figures 6–10. *Xylotrechus* spp. 6–8. *X. pekingensis* Pic, 1939; 6. Holotype, from env. Peking, photographed by Xavier Gouverneur; 7. ♂, from Beijing, Miyun Dist.; 8. ♀, from Beijing, Mentougou Dist.; 9, 10. *X. yanoi* Gressitt, 1954, from Japan, Fukuoka Pref., photographed by J. Yamasako. 9. ♂; 10. ♀; A. Dorsal view; B. Head, frontal view, not to scale.

Type material. Examined through pictures (Fig. 6) (unsure): 'Chine' / 'env. Peking' / ; 'Museum Paris' / 'coll./E. Licent'; 'pekingensis' / 'mihi'; 'HOLOTYPE' (MNHN). From

original paper and the labels, we can not conclude the exact locality of this species. It must either from Beijing, or near Beijing but belong to Hebei. We have specimens from Beijing and Hebei to well define this taxon, and all the characters are stable.

**Specimens examined.** Beijing: 1♂1♀, Mentougou Dist., Xiaolongmen, 22-VI-2012, leg. Chao WU (CWC); 1♀, Mentougou Dist., Xiaolongmenlinchang, alt. 1130 m, 02-VIII-2003, leg. Dakang ZHOU (CZDK); 1♀ (Figs 8A, 8B), Mentougou Dist., Xiaolongmenlinchang, 26-VII-04-VIII-2015, leg. Xinlei HUANG by sweeping net (IZCAS); 1♀, Mentougou, Xiaolongmen, 16-VIII-2018, leg. Meiyang LIN (IZCAS); 1♂, Mentougou Dist., Xiaolongmenlinchang, alt. 1100 m, 17-22-VIII-2016, leg. Banxia group (CSHL); 1♂, Huairou Dist., Sunzhazicun, Labagoumenjingqu, 12-VII-2020, leg. Chao WU (CWC); 1♀, Huairou Dist., Dashuiyu, 06-VII-2004 (CSHL); 1♂ (Figs 7A, 7B), Miyun Dist., Yumengshan, 10-VII-2005, leg. Hongliang SHI (CSHL); 1♀, Miyun County, Huayuancun, 27-VII-2018, leg. Guanyuan CAO (CCGY); 2♂, Miyun County, Xishihu, 17-VII-2020, leg. Jian SUN (CSJ). Hebei: 1♀, Chahar, Yangkiaping, 13-VII-1937, coll. O. Piel (IZCAS); 1♂, Xuanhua, Linshan, 15-VII-1938 (IZCAS); 1♂, Qinhuangdao, Zushan, 11-12-VIII-2003 (IZCAS). Shaanxi: 1♀, Taibaishan, Haopingsi, alt. 1170 m, 03-VI-1982, leg. Wenjie SUN (NWAFU); 1♀, Fuxian, Ziwulingbaohuqu, Shihuigou, alt. 1256 m, 108.65577°E, 35.82770°N, 6-15-VII-2019 by Malaise trap (IZCAS).

**Distribution.** China: Beijing (Changping Dist. (Yu 2020), Mentougou Dist., Huairou Dist., Miyun Dist.), Hebei (new record), Shaanxi (new record).

**Remarks.** This species was synonymized with *Xylotrechus yanoi* Gressitt, 1934 by Gressitt (1951). They did look very similar to each other from dorsal view. However, *Xylotrechus pekingensis* Pic, 1939 can be distinguished from *X. yanoi* Gressitt, 1934 from frontal view, by the frontal carinae in form of a narrow “V” shaped and head entirely black (Figs 7B, 8B), instead of the frontal carinae in form of almost only one line and head mostly red (Figs 9B, 10B) in *X. yanoi* (Figs 9-10) from Japan. According to specimens deposited in IZCAS, this species is newly recorded from Hebei and Shaanxi.

##### 5. *Xylotrechus (Xylotrechus) rufilius rufilius* Bates, 1884 (Figs 11, 12)

*Xylotrechus rufilius* Bates, 1884: 233. TL: Japan. TD: MNHN.

*Clytus (Xylotrechus) magnicollis* Fairmaire, 1888a: 34. TL: China. TD: MNHN. Synonymized with *X. rufilius* by Löbl & Smetana, 2010: 183.

*Xylotrechus magnicollis* var. *decoloratus* Pic, 1910: 30. TL: China: Taiwan. TD: MNHN.

*Xylotrechus magnicollis* var. *atrithorax* Pic, 1910: 30. TL: China: Taiwan. TD: MNHN.

*Xylotrechus gahani* Stebbing, 1914: 352. TL: India. TD: unknown. Synonymized with *X. magnicollis* by Gardner, 1939: 13. [HN]

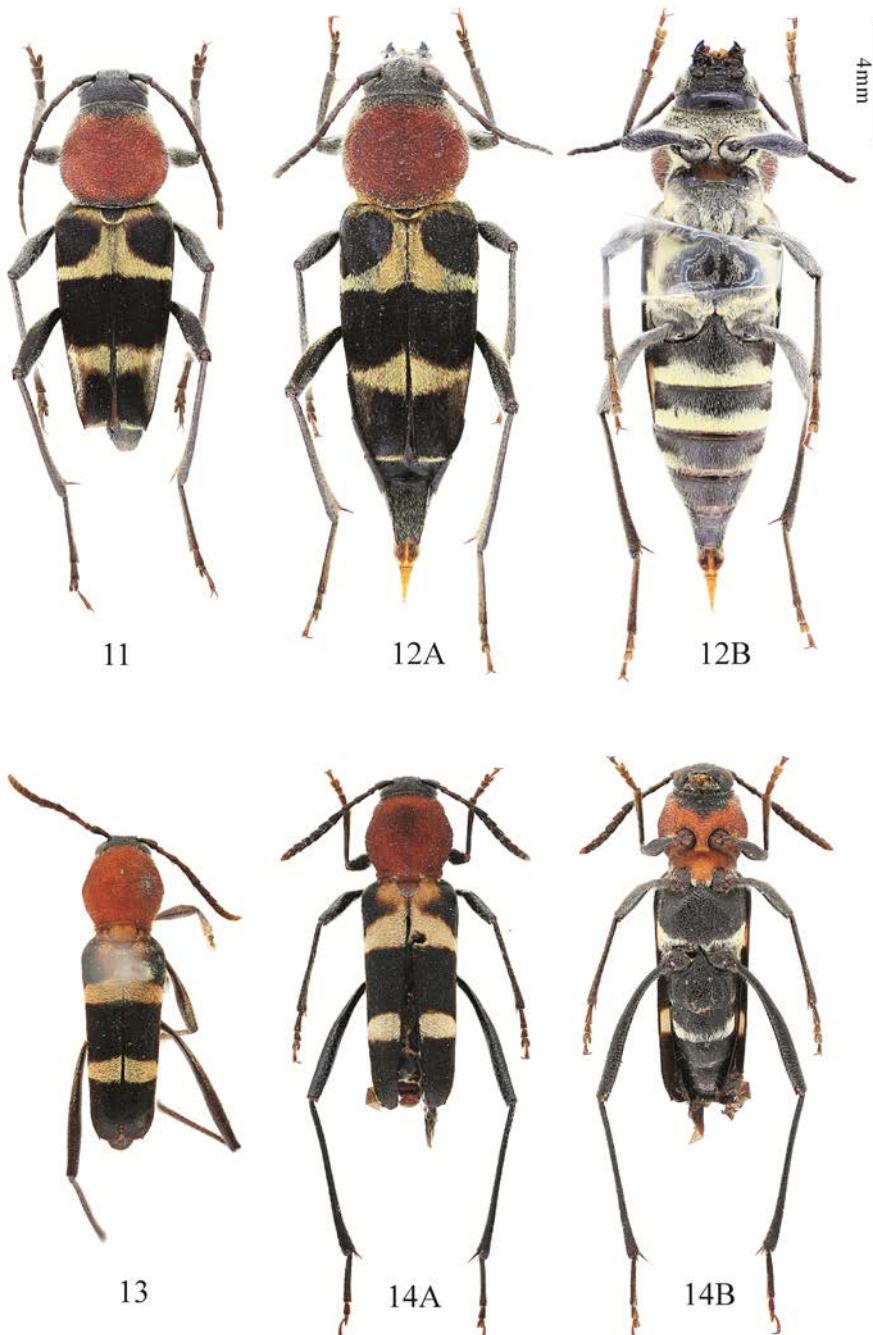
*Xylotrechus renominatus* Beeson, 1919: 151. TL: India. TD: unknown. Synonymized with *Xylotrechus magnicollis* Fairmaire, 1888 by Gardner, 1939: 13.

*Xylotrechus irinae* Plavilstshikov, 1925: 360. TL: Russia: Siberia. TD: ZMUM. Synonymized by Lobanov, Danilevsky & Murzin, 1981: 789.

*Xylotrechus (s. str.) magnicollis*: Gressitt, 1951: 248; Hua, 2002: 236.

*Xylotrechus (Xylotrechus) rufilius*: Gressitt, 1951: 250; Hua, 2002: 237; Lin, 2017: 199, pl. 17, fig. 1.

*Xylotrechus (Xylotrechus) rufilius rufilius*: Löbl & Smetana, 2010: 183; Chen *et al.*, 2019: 177; Danilevsky, 2020: 254.



Figures 11–14. *Xylotrechus* spp. 11, 12. *X. rufilius* Bates, 1884, from Beijing, Haidian Dist.; 11. ♂; 12. ♀; 13, 14. *X. pyrrhoderus pyrrhoderus* Bates, 1873; 13. ♂, from Anhui, Huangshan; 14. ♂, from Beijing, Mentougou Dist. A. Dorsal view; B. Ventral view.

**Specimens examined.** Beijing: 1♂, Shijingshan Dist., Badachu, before 2020, leg. Chen JIN (CJC); 3♂1♀, Haidian Dist., Jiufeng, 04-VI-2006, leg. Ye LIU (CSHL); 2♂, same data

but deposited in IZCAS; 1♂, Haidian Dist., Xishan, 06-VII-2018, leg. Chao WU (CWC); 1♀, Haidian Dist., Baiwangshan, alt. 150 m, 26-VI-2020, leg. Hongliang SHI & Ganyan YANG (CSHL); 9♂11♀ (Figs 11, 12), Haidian Dist., Summer Palace, host plant: *Koelreuteria paniculata*, 14-V-2015, leg. Meiyng LIN (IZCAS); 1♀, same data but emerged in lab on 17-VI-2015; 4♂4♀, same data but emerged in lab on 22-VI-2018; 2♂2♀, Haidian Dist., Wofosi, 21-V-1957 (IZCAS); 1♂2♀, Haidian Dist. Yingtaogou, host plant: *Salix* sp., 31-V-1983, leg. Wenzhen MA (IZCAS); 1♂, Haidian Dist., Dajuesi, 18-V-1962, leg. Shuyong WANG; 1♂1♀, Haidian Dist., Wukesong, 28-V-1962 (IZCAS); 1♀, Mentougou Dist., 05-VII-2008 (BJFU); several pictures taken on Mentougou Dist., Baihuashan, by Nan YANG; 1♂1♀, Mentougou Dist., Qinyukou, 07-VI-2018, leg. Chao WU (CWC); 1♂, Fangshan Dist., Fozizhuangzhen, Fozizhuangxiang, 172 m, E115.886889°, N39.817822°, 03–16-VI-2020, leg. Xu ZHANG & Chen JIN by Malaise trap (IZCAS); 1♂1♀, Fangshan Dist., Huaigeda, 322 m, E115.629056°, N39.667636°, 03–16-VI-2020, leg. Xu ZHANG & Chen JIN by Malaise trap (IZCAS); 2♀, same data but 16-VI-12-VII-2020; 1♂1♀, Changping Dist., Duijiuyu, 07-V-2017, leg. Chao WU (CWC); 1♀, Daxing Dist., Shangzhuang, host plant: *Ulmus* sp., 04-V-1981 (IZCAS); 2♂1♀, Huairou Dist., Labagoumenzhen, Sunzhazicun, 28-VII-2004, leg. Feng YUAN (CZDK); 1♀, Huairou Dist., Labagoumenzhen, Huangdianzicun, 28-VII-2004, leg. Feng YUAN (CZDK); 3♂6♀, Pinggu Dist., Sizuolou Nat. Rev., Dongding, alt. 473 m, 117.144981°E, 40.272522°N, 28-V-10-VI-2020, leg. Xu ZHANG & Chen JIN by Malaise trap (IZCAS); 1♂1♀, Pinggu Dist., Donggoucun, 28-V-2020, leg. Xu ZHANG (IZCAS); 2♂5♀, Pinggu Dist., Shilinxia, 01-VI-2020, leg. Guanyuan CAO (CCGY); 2♂1♀, Pinggu Dist., Yuzishancun, 13-V-2020, leg. Jian SUN (CSJ); 1♀, Miyun Dist., Shichengzhen, Wangzhuangcun, alt. 173 m, 116.443682°E, 40.530909°N, 09-VIII-2020, leg. Meiyng LIN (IZCAS); 1♂, Miyun Dist., Xishihu, 17-VII-2020, leg. Jian SUN (CSJ); 1♀, Yanqing Dist., Songshan, 2013 (BJFU). Hebei: 5♂5♀, Prov., Hopeh, Sienhsien (= Xianxian = Xian County) (IZCAS); 1♂, Prov., Hopeh, Sienhsien (= Xianxian = Xian County), VI-1941, leg. B. Becquart (IZCAS). Heilongjiang: 1♀, Chalinhe, 11-VII-1957 (IZCAS); 1♂, Maoershan, 13-VII-1931 (IZCAS). Liaoning: 1♂, Gaolingzi, 10-VII-1942 (IZCAS); 1♀, Liaoning, 1974 (IZCAS). Shanxi: 1♀, Jiangxian, 27-V-1980, leg. Linfu LI (IZCAS); 1♂, Jiangxian, Dahelinchang, alt. 1020 m, 03-VIII-1972, leg. Shuyong WANG (IZCAS). Henan: 1♂, Baiyunshan, alt. 1600 m, 22-VII-2002, leg. Lijie ZHANG (IZCAS). Shaanxi: 1♂, Zhouzhi County, Houzhenzizhen, Laoxianchengcun to Qinlingliang, 1745–2021 m, 107.7471–107.7435°E, 33.8001–33.8149°N, 27-V-2007, leg. Meiyng LIN (IZCAS); 1♂1♀, Foping County, Changjiaobaxiang, Shangshawocun, alt. 1215 m, 108.0136°E, 33.5971°N, 29-V-2007, leg. Meiyng LIN (IZCAS, IOZ(E)1904775); 1♂, Foping County, Longcaoping, Xigou, alt. 1011 m, 07-VIII-1973, leg. Dingxi LIAO (IZCAS); 2♂, Zhen'an County, Yungaisi, Zhenmangcun, 21-VI-2014 (IZCAS); 1♂, Huangling, VII-1960 (IZCAS); 1♀, Danfeng County, Caichuanzhen, alt. 1070 m, 110°18'42"E, 33°53'14"N, 30-VI-2014, leg. Zhengzhong HUANG (IZCAS); 1♂, Yan'an, Fuxian, Ziwulingbaohuqu, Huashuzhuang, 04-VIII-2019, leg. Jian SHEN (IZCAS); 1♀, Fuxian, Ziwulingbaohuqu, Huashugou, alt. 1256 m, 108.71143°E, 35.89698°N, 29-VI-15-VII-2019 by Malaise trap (IZCAS); 4♀, Fuxian, Ziwulingbaohuqu, Shihuigou, 29-VI-15-VII-2019 by Malaise trap (IZCAS); 1♂1♀, Fuxian, Ziwulingbaohuqu, Bamianyao, alt. 1250 m, 19-VI-05-VII-2019 by Malaise trap (IZCAS). Zhejiang: 1♂, Anji, Longwangshan, alt. 1100 m, 14-VI-1996, leg. Hong WU (IZCAS). Jiangxi: 1♀, Guixi (IZCAS). Hunan: 1♀,

Tongdao County, VI-1981 (IZCAS). Fujian: 1♀, Fuzhou, IV-1958, leg. Chengchang ZHANG (IZCAS). Taiwan: 1♂, Formosana, Kuraru, V-1935, coll. JL GRESSITT (IZCAS); 1♂, Formosa, Takao Hsien, Laopi, 09-VI-1981, leg. Kezuka (IZCAS); 2♀, Formosa, Hori, 23-24-VIII-1947 (SYSU, Ce-001676-77); 1♂, Formosa, Kuraru, V-1935 (SYSU, Ce-001680, ex L. Gressitt collection). Guangdong: 1♂1♀, Longmen, 18-V-1980 (IZCAS). Guangxi: 1♂, Fangcheng, Dongzhongxiang, alt. 550 m, 05-VI-2000, leg. Wenzhu LI (IZCAS); 1♂, Baishou, 07-VII-1952 (IZCAS). Chongqing: 1♂, Mt. Jinyunshan, 09-V-2021, leg. Hongmin TIAN (SWU). Sichuan: 1♀, Dechang, 12-VI-1961, leg. Dingxi LIAO (IZCAS). Guizhou: 2♂3♀, Guizhou City Forest Park, 28-VI-2008, leg. Ye LIU (IZCAS). Yunnan: 1♂, Meng'a, 18-IV-1982, leg. Chenglai FANG (IZCAS); 1♂, Xishuangbanna, Meng'a, 1050-1080 m, 14-V-1958, leg. Fuji PU (IZCAS); 1♂, Diqing, Weixi County, Badixiang, Luohualuo, alt. 2391 m, 98.992865°E, 27.903993°N, 30-VI-2020, leg. Weidong HUANG (CAU).

**Distribution.** China: Beijing (Shijingshan Dist., Haidian Dist., Mentougou Dist., Fangshan Dist., Changping Dist., Daxing Dist., Huairou Dist., Pinggu Dist., Miyun Dist., Yanqing Dist.), Heilongjiang, Jilin, Liaoning, Hebei, Shanxi (new record), Shandong, Henan, Shaanxi, Zhejiang, Hubei, Jiangxi, Hunan, Fujian, Taiwan, Guangdong, Hainan, Hong Kong, Guangxi, Chongqing (new record), Sichuan, Guizhou (new record), Yunnan; D. P. R. Korea; R. O. Korea; Japan; Laos; India; Myanmar; Russia (Siberia).

**Host plants.** *Acer* sp. (Aceraceae), *Castanopsis sclerophylla* (Fagaceae), *Dalbergia* sp. (Fabaceae), *Diospyros kaki* (Ebenaceae), *Ficus elastica* (Moraceae), *Fraxinus mandshurica* (Oleaceae), *Melia azedarach* (Meliaceae), *Mimusops elengi* (Sapotaceae), *Quercus* sp. (Fagaceae), *Sophora* sp. (Fabaceae), *Ulmus parvifolia* (Ulmaceae), *Xylosma* sp. (Flacourtiaceae) (Gressitt 1951; Hua 2002), *Koelreuteria paniculata* (Sapindaceae) (Lin 2017).

**Remarks.** This species is recorded from Shanxi, Chongqing and Guizhou Provinces for the first time.

*Koelreuteria paniculata* of the family Sapindaceae is widely planted as a kind of landscape plant in Beijing. This beetle was a pest to the plant in the Summer Palace during 2014-2018 (personal observation and communication with Summer Palace), whose larvae can damage the plant seriously. There are three specimens bearing labels written “*Salix* sp.” as the host plant.

## 6. *Xylotrechus pyrrhoderus pyrrhoderus* Bates, 1873 (Figs 13, 14)

*Xylotrechus pyrrhoderus* Bates, 1873: 200. TL: Japan. TD: MNHN.

*Xylotrechus (Xylotrechus) pyrrhoderus pyrrhoderus*: Gressitt, 1951: 249; Löbl & Smetana, 2010: 183; Chen *et al.*, 2019: 177; Danilevsky, 2020: 254.

*Xylotrechus pyrrhoderus*: Xu & Neng, 2007: 77, fig.; Lin, 2017: 198, pl. 16, figs 8a, 8b.

**Specimens examined.** China, Beijing: 1♀, Haidian Dist., Wofosi, VII-1980 (BJFU); 1♂, Mentougou Dist., Xiaolongmenlinchang, 1100 m, 17-22-VIII-2015, leg. Yonglin ZHENG (CSHL); 1♂ (Fig. 14), same data but leg. Zhengxiang HE (CSHL); 1♀, Huairou Dist., Labagoumen, 28-VII-2020, leg. Xiaoran YANG (CYXR); 1♂, same data but 25-VII-1-VIII-2020. Shaanxi: 1♀, Zhouzhi, Louguantai, V-1962 (NWAFU). Gansu: 1♀, Kangxian, Baiyunshan, 1250-1750 m, 12-VII-1998, leg. Decheng YUAN (IZCAS). Shanghai: 1♂, Prov. Kiangsu, Shanghai, VI-1936 (IZCAS, ex Musee Heude), Anhui: 1♂ (Fig. 13), Huangshan, VIII-1936 (IZCAS). Guangdong: 1♂, Ruyuan, Nanling Nat. Rev., Ruyang station, Houshan, alt. 1266 m, 19-VII-2008, leg. Ganyan YANG by beating (IZCAS). Chongqing: 1♂,

Wushan County, Guanduzhen, Guanmuping, alt. 1455 m, 30.917°N, 109.911°E, 05-VIII-2019, leg. Bin CHEN etc. (CQNU); 1♀, Wushan County, Guanduzhen, Sanchakou, 30.891°N, 109.799°E, 13-VII-2019, leg. Bin CHEN etc. (CQNU). Sichuan: 1♂, Yibin, 09-VIII-1963, leg. Jinlong MAO (IZCAS).

Distribution China: Beijing (new record, Haidian Dist., Mentougou Dist., Huairou Dist.), Jilin, Liaoning, Inner Mongolia, Shanxi, Shandong, Henan, Shaanxi, Gansu (new record); Jiangsu, Shanghai, Anhui (new record); Zhejiang, Hubei, Jiangxi, Fujian, Guangdong, Guangxi, Chongqing (new record), Sichuan, Guizhou; Mongolia; D. P. R. Korea; R. O. Korea; Japan; Russia (Siberia).

Host plant. *Vitis vinifera* Linnaeus (Vitaceae) (Gressitt, 1951).

Remarks. This species is newly recorded from Beijing, Gansu, Shanghai, Anhui, and Chongqing.

### 7. *Xylotrechus (Xylotrechus) polyzonus* (Fairmaire, 1888) (Figs 15–17)

*Clytus polyzonus* Fairmaire, 1888b: 143. TL: China: Beijing. TD: MNHN.

*Xylotrechus poloyzonus*: Aurivillius, 1912: 366; Yu, 2020: 254, 1 fig..

*Xylotrechus bifenestratus* Pic, 1916: 180. TL: China: Beijing. TD: MNHN. **New synonym**

*Xylotrechus jeholensis* Kano, 1935: 5. TL: China: Jehol. TD: NSMT.

*Xylotrechus (Xylotrechus) bifenestratus*: Gressitt, 1951: 240; Hua, 2002: 236; Löbl & Smetana, 2010: 181; Chen *et al.*, 2019: 174; Danilevsky, 2020: 252.

*Xylotrechus (Xylotrechus) polyzonus*: Gressitt, 1951: 249; Hua, 2002: 237; Löbl & Smetana, 2010: 183; Lin, 2017: 197, pl. 16, fig. 7; Chen *et al.*, 2019: 176; Danilevsky, 2020: 254.

Type material. Holotype of *Xylotrechus bifenestratus* Pic, 1916 examined through pictures (Fig. 17) (♀): 'Yati' / '18.VIII.30' / 'Museum Paris' / 'coll./E. Licent'; 'Xylotrechus' / 'bifenestratus' / 'Pic'; HOLOTYPE (MNHN). According to the original paper, the type locality is "Nord de Pékin", the collector was Père Armand David and the date was 1865. According to the labels, the type locality "Yati" is located in the Northwest of Yanqing District, Beijing based on the "Etapes des Voyages du P. Licent (1914–1937)", the date was 18-VIII-1930, while the additional "coll. E. Licent" might mean the collector was E. Licent or that the specimen belonged to Licent's collection.

**Specimens examined.** Beijing: 1♂1♀, Haidian Dist., Yangtaishan, 03-IX-2003, leg. Hua YANG (CZDK); 1♀, Mengtougou Dist., Xiaolongmen, 1200–1300 m, 20-VIII-2003 (CSHL, ex Collection of Ye LIU, Beijing, China); 1♀, Mentougou Dist., Xiaolongmencun, Xiaolongmenlinchang, 02-VIII-1982, leg. Weiwei ZHANG (CZDK); 1♂, Mentougou Dist., Xiaolongmen, 1100 m, 22-VIII-1990, leg. Yinheng HAN (IZCAS); 1♂, Mentougou Dist., Baihuashan, 26-VIII-1973, leg. Yinheng HAN (IZCAS); 1♂, same data but 21-VIII-1973; 1♀, Mentougou Dist., Baihuashan, alt. 1000 m, 22-VIII-1963, leg. Shuyong WANG (IZCAS); 1♀, same data but 1100–1320 m, 23-VIII-1963; 1♀, Baihuashan, 21-VIII-1973; 1♀, Mentougou Dist., Miaofengshan, 07-VIII-2019, leg. Guanyuan CAO (CCGY); 2♂ (Fig. 15), Fangshan Dist., Shangfangshan, alt. 400 m, 17-VII-1961, leg. Shuyong WANG (IZCAS); 1♂, Yanqing Dist., Sanpu, 18-VIII-1964, leg. Subai LIAO (IZCAS); 2♀ (Fig. 16), Yanqing Dist., Badaling, alt. 570 m, 03-VIII-1961, leg. Shuyong WANG (IZCAS). Hebei: 1♂, Zhuolu, Xiamawei, 19-VIII-2018, leg. Meiyang LIN (IZCAS); 1♀, Chahar, Yangkiaping, 19-VII-1937, coll. O. Piel (IZCAS). Shaanxi: 1♀, Ningshan, Huoditang, 07–24-VII-2016, leg. Yong WANG (IZCAS); 1♀, Fuxian, Ziwuling Nat. Rev., Bamianyao, alt. 1200 m, 35.80981°N,

108.71397°E, 23–26-VIII-2018, by flight trap (IZCAS); 1♀, Ankang, VI-1980 (NWAFU).

**Distribution.** China: Liaoning, Beijing (Huairou Dist. (Yu 2020), Haidianqu Dist., Mentougou Dist., Fangshan Dist., Yanqing Dist.), Hebei, Shaanxi, Hubei; D. P. R. Korea; R. O. Korea; Russia (Siberia).

**Remarks.** Although we had no chance to examine the syntypes of *Clytus polyzonus* Fairmaire, 1888, which was from Environs de Pékin and should be deposited in MNHN, we synonymize *Xylotrechus bifenestratus* Pic, 1916 with it. The reasons include: a) *Xylotrechus polyzonus* is a well-known species and we have examined a series of specimens from North China; b) the type pictures of *Xylotrechus bifenestratus* Pic, 1916 match with *X. polyzonus* very well, and their type localities are both from Beijing; c) there is not a second similar species from Beijing based on our research; and d) Carolus Holzschuh and Petr Viktora agree with this proposal (personal communication). According to the collection in IZCAS, there is no *X. polyzonus* from South China. The record from Guangdong of *X. polyzonus* and Yunnan of *X. bifenestratus* could be a misidentification of *X. incurvatus* (Chevrolat, 1863).

### 8. *Xylotrechus (Xylotrechus) hircus* (Gebler, 1825) (Figs 18–20)

*Clytus hircus* Gebler, 1825: 54. TL: Russia. TD: ZIN.

*Xylotrechus hircus*: Chevrolat, 1863: 325; Hua, 2002: 236; Xu & Neng, 2007: 75, 1 fig.; Yu, 2020: 254, 1 fig..

*Xylotrechus* (s. str.) *hircus*: Gressitt, 1951: 244.

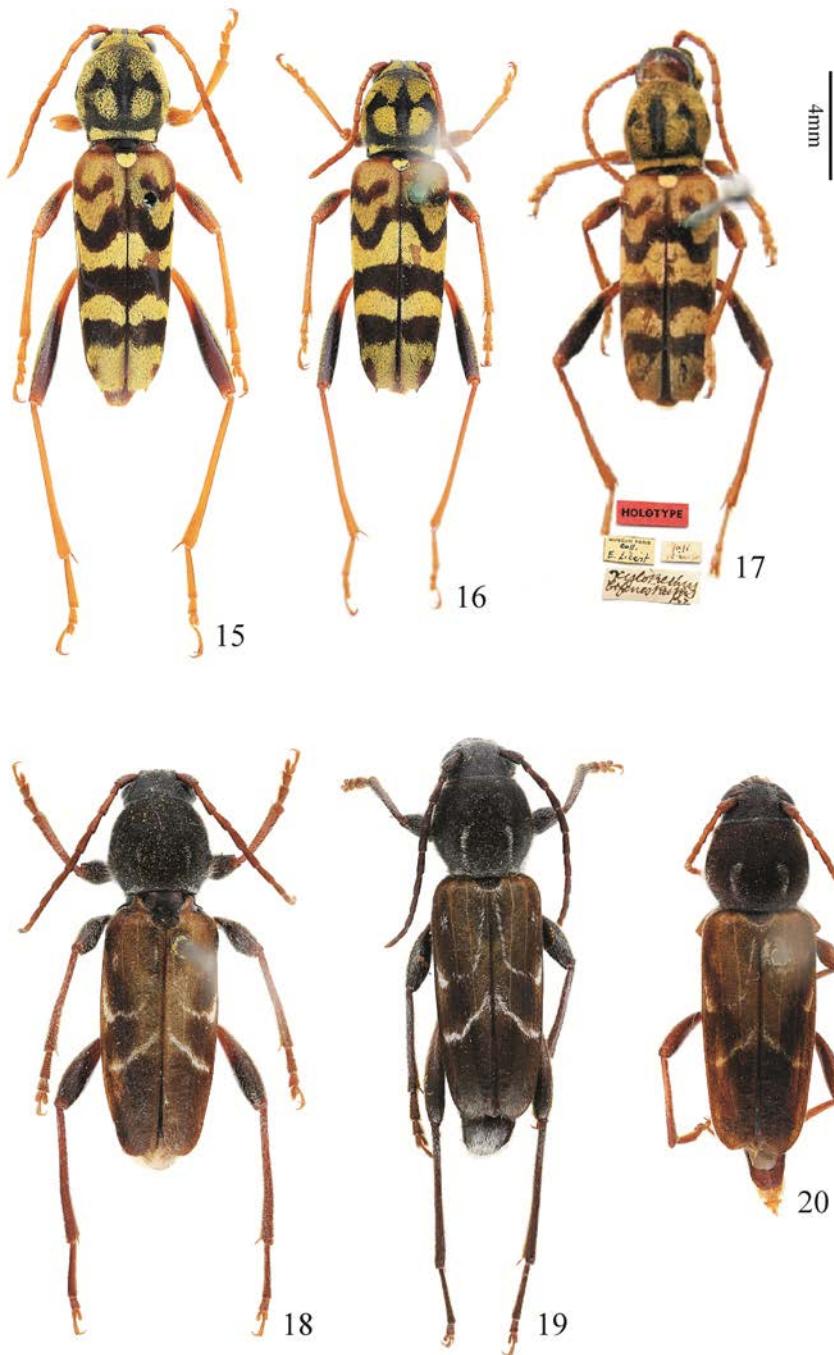
*Xylotrechus (Xylotrechus) hircus*: Löbl & Smetana, 2010: 182; Chen *et al.*, 2019: 175; Danilevsky, 2020: 253.

**Specimens examined.** Heilongjiang: 1♀ (Fig. 20), Dailing, alt. 390 m, 03-VIII-1956 (IZCAS); 1♀, Heiheshi, Aihui, 20-VI-1943, leg. H. Senda (IZCAS); 1♂, Ha'erbin, 29-VI-1945 (IZCAS); 1♀, Suihuashi, Wangkui County, Huanchengxiang, 12-VI-1979 (IZCAS); 1♂, Jidong County, Dongcun, 07-VI-1979 (IZCAS). Jilin: 1♂, Kirin Prov., Maoershan, 13-VII-1931 (IZCAS). Liaoning: 1♀, Xinjin (= Dalianshi, Pulandian Dist.), host plant: *Abies fabri*, 1984, leg. Xiangzhi LIU (IZCAS); 1♂, Gaolingzi, 10-VII-1942 (IZCAS). Beijing: 1♂, Mentougou Dist., Lingshan, alt. 1700 m, 21-VI-2003, leg. Dakang ZHOU (CZDK); 1♂ (Fig. 18), Mentougou Dist. Baihuashan, alt. 1200 m, 27-V-1973, leg. Yongshan SHI (IZCAS); 1♀, Mentougou Dist., Xiaolongmen, alt. 1164–1210 m, 39.96°N, 115.43°E, 05-VII-2011, leg. Kuiyan ZHANG (IZCAS); 1♀ (Fig. 19), Huairou Dist., Baoshanzhen, Sidaohecun, Beinonglinchang, alt. 800–1400 m, 21–24-VI-2019, leg. Hongliang SHI (CSHL). Hebei: 1♂, Changli, 01-VI-1978 (IZCAS); 1♀, East Tomb (IZCAS). Xinjiang: 1♂, Fuhai, alt. 500 m, 24-VII-1960, leg. Shuyong WANG (IZCAS).

**Distribution** China: Heilongjiang (new record), Jilin, Liaoning (new record), Inner Mongolia, Beijing (Changping Dist. (Yu, 2020), Mentougou Dist., Huairou Dist.), Hebei, Xinjiang (new record); Mongolia; D. P. R. Korea; R. O. Korea; Japan; Kazakhstan; Russia (Siberia).

**Host plant.** *Betula daurica* (Betulaceae) (Gressitt 1951; Hua 2002).

**Remarks.** This species is newly recorded from Heilongjiang, Liaoning and Xinjiang Provinces. The Beijing record was included in Chen *et al.* (2019). Catching an adult on leaves of *Artemisia* sp., Yu (2020) reported it from Changping Dist. of Beijing. Danilevsky (2020) also included a Beijing report.



Figures 15–20. *Xylotrechus* spp. 15–17. *X. polyzonus* (Fairmaire, 1888). 15. ♂, from Beijing, Fangshan Dist.; 16. ♀, from Beijing, Yanqing Dist.; 17. Holotype of *X. bifenestratus* Pic, 1916, with labels, ♀, from Beijing, Yanqing Dist., photographed by Xavier Gouverneur. 18–20. *X. hircus* (Gebler, 1825). 18. ♂, from Beijing, Mentougou Dist.; 19. ♀, from Beijing, Huairou Dist.; 20. ♀, from Heilongjiang, Dailing.

9. *Xylotrechus (Xylotrechus) dominula* (White, 1855) (Figs 21, 22)

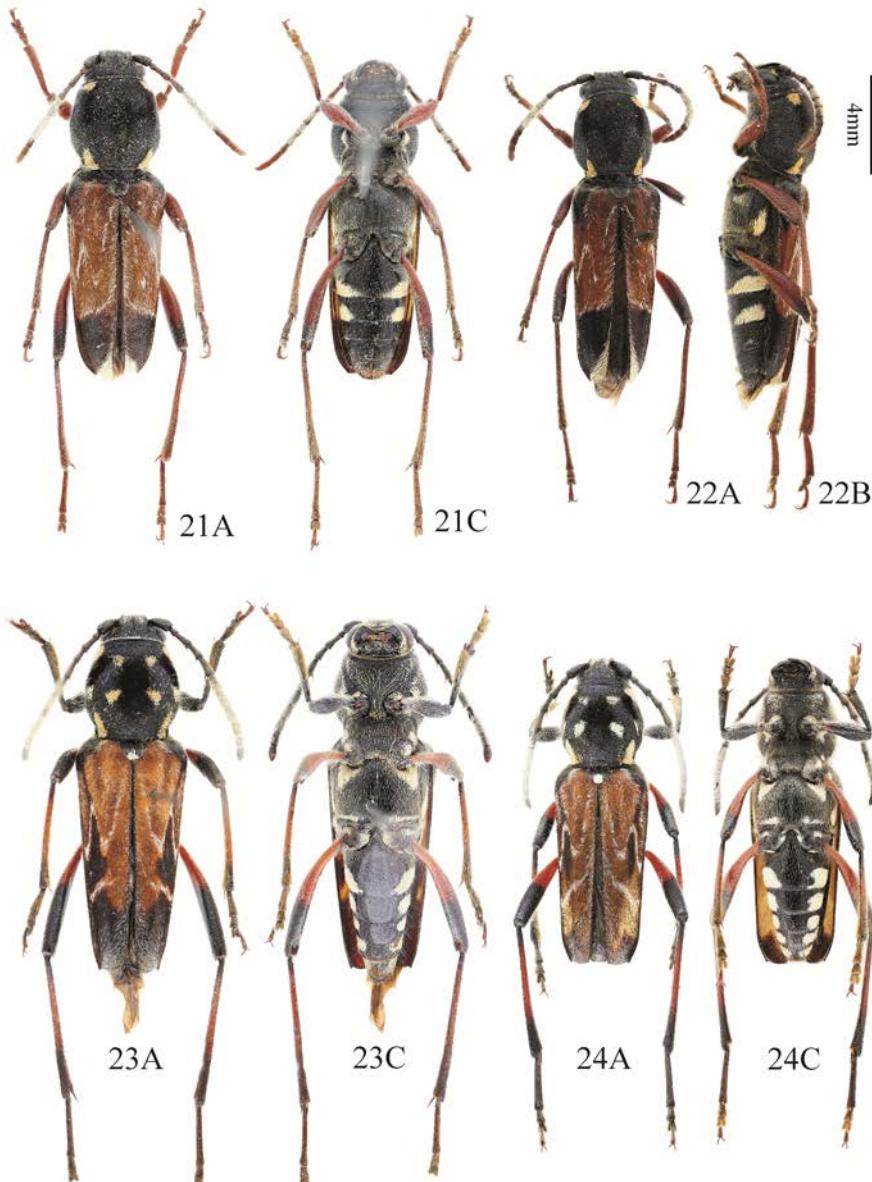
*Clytus Dominula* White, 1855: 261. TL: China. TD: BMNH.

*Xylotrechus dominulus* [sic]: C. O. Waterhouse, 1874: xxix; Hua, 2002: 236; Yu, 2020: 253, 2 figs.

*Xylotrechus (s. str.) dominulus* [sic]: Gressitt, 1951: 243; Löbl & Smetana, 2010: 182; Chen *et al.*, 2019:

175.

*Xylotrechus (Xylotrechus) dominula*: Danilevsky, 2020: 252.



Figures 21–24. *Xylotrechus* spp. 21, 22. *X. dominula* (White, 1855). 21. ♂, from Beijing, Yanqing Dist.; 22. ♀, from Fujian, Wuyishan. 23, 24. *X. grayii grayii* (White, 1855). 23. ♀, from Hebei, Qinhuangdao; 24. ♂, from Beijing, Chaoyang Dist. A. Dorsal view; B. Lateral view; C. Ventral view.

**Specimens examined.** Beijing: 1♂2♀, Mentougou Dist., Zhaizhengzhen, Qinfu, alt. 436 m, 39.967011°N, 115.669584°E, 30-V-2021, leg. Xu ZHANG & Meiying LIN (IZCAS); 1♀, Mentougou Dist., 05-VII-2008 (BJFU); 1♂ (Figs 21A, 21C), Yanqing Dist., Sanpu, Badaling, 14-VI-1984, leg. Shengqiao JIANG (IZCAS); 2♀, Yanqing Dist., Badaling, 05-VI-1992, leg. Wenzhu LI (IZCAS); 1♀, Yanqing Dist., Xiahujiao, 21-VI-2021, leg. Chen JIN (CJC). Henan: 1♂, Xinxiang, Huixian, Baligou, 11-V-2002, leg. Weiping GUO (CQNU, HIST-HN58201711130234). Fujian: 1♂, Jianyang, Huangkeng, Guilin, 270 m, 11-IV-1960, leg. Yong ZUO (IZCAS); 1♀ (Figs 22A, 22B), Wuyishan, VIII-2005, leg. Meiying LIN (IZCAS).

**Distribution.** China: Beijing (Pinggu Dist. (Yu 2020), Mentougou, Yanqing), Henan (new record), Gansu, Zhejiang, Fujian (new record), Guangdong.

**Remarks.** This species is recorded from Henan and Fujian Provinces for the first time. Yu (2020) reported one picture on leaves of *Artemisia argyi* from Pinggu Dist., and one adult specimen from Yanqing Dist., while Viktora (2020a) also reported this species from Beijing. Two females were walking on twigs of *Flueggea suffruticosa* on May 30 (personal observation). The species name “*dominula*” is a noun, so the ending cannot be changed according to the gender of the genus name. Most of authors use “*dominulus*” because the gender of *Xylotrechus* is masculine (Waterhouse 1874; Gressitt 1951; Hua 2002; Löbl & Smetana 2010; Chen *et al.* 2019; Yu 2020). However, the correct spelling is always “*dominula*” (White 1855; Danilevsky 2020).

#### 10. *Xylotrechus (Xylotrechus) grayii grayii* (White, 1855) (Figs 23, 24)

*Clytus grayii* White, 1855: 261, pl. VI, fig. 4. TL: China. TD: BMNH.

*Xylotrechus grayi* [sic]: Bates, 1884: 233.

*Xylotrechus (Xylotrechus) grayii*: Gressitt, 1951: 243, pl. 9, fig. 8; Lin, 2017: 195; Yu, 2020: 254, 1 fig..

*Xylotrechus grayii grayii*: Hua, 2002: 236.

*Xylotrechus (Xylotrechus) grayii grayii*: Löbl & Smetana, 2010: 182; Chen *et al.*, 2019: 175; Danilevsky, 2020: 252.

**Specimens examined.** Beijing: 2♂ (Figs 24, 24C), Chaoyang Dist., Sunhexiang, flying around *Fraxinus chinensis* Roxb, 19-IV-2020, leg. Yong WANG (IZCAS). Hebei: 1♀ (Figs 23A, 23C), Qinhuangdao, Zushan, 11–12-VIII-2003 (IZCAS). Shandong: 2♂4♀, Jinan, 1978, leg. Qingqi LIU (IZCAS); 1♂3♀, Pingyi County, Zhengchengzhen, host: *Lonicera japonica* Thunb., VIII-2012, leg. Jianmin CHEN (IZCAS). Shaanxi: 1♀, Yan'an, Fuxian, Ziwingbaohuqu, Laohugou, alt. 1345 m, 25-VI-2019, leg. Meixia YANG (IZCAS). Gansu: 1♂, Wenxian, Liujiaping, alt. 2100 m, 27-VI-1998, leg. Shuyong WANG (IZCAS); 2♂, Wenxian, Tieloukeqiaocun, alt. 1500 m, 23-VI-1999, leg. Hongjian WANG (IZCAS). Jiangsu: 1♀, Chemo, 03-V-1935, coll. O. Piel (IZCAS); 1♀, same data but 09-V-1935; 1♀, Kiangsu, Chinkiang, 16-V-1918 (IZCAS). Shanghai: 2♂, Shanghai, Zi-ka-wei, 03-VI-1923 (IZCAS); 1♀, same data but 12-V-1917; 1♂1♀, same data but 02-V-1920; 2♀, Shanghai, 29–30-IV-1947 (IZCAS); 1♀, Shanghai, 19-IV-1932, leg. A. SAVIO (IZCAS); 1♀, Shanghai, 13-IV-1955, leg. Keren HUANG (IZCAS). Hubei: 1♀, Shennongjia, alt. 900–1700 m, 26-V-1981, leg. Yinheng HAN (IZCAS). Fujian: 1♂, Wuyishan, Yunyoufeng, 23-IV-2013, leg. Zhiliang WANG (IZCAS); 1♀, Nanping, 23-V-1981 (IZCAS). Taiwan: 1♂, Formosa, Kuraru, coll. J. L. GRESSITT, 09-V-1935. Guangdong: 1♀, Kwangtung, Yaoshan (Mt. Range), Lin-hsien (District), 01–02-V-1934, leg. FK. TO (SYSU, Ce-001670). Sichuan: 1♂,

Wenchuan, Wolong, alt. 1600 m, 26-VII-1983, leg. Shuyong WANG (IZCAS); 1♂, Luding, Xinxing, alt. 2100 m, 15-VI-1983, leg. Yuanqing CHEN (IZCAS); 1♀, Emeishan, 08-VI-1955, leg. Keren HUANG & Gentao JIN (IZCAS); 1♂, Emeishan, alt. 1000 m, 07-VI-1979, leg. Huiying WANG (IZCAS); 1♀, Emeishan, Baoguosi, 18-VI-1957, leg. Zongyuan WANG (IZCAS); 1♀, Emeishan, Baoguosi, alt. 550–750 m, 11-V-1957, leg. Keren HUANG (IZCAS); 1♂3♀, Emeishan, 09-VI-1955, leg. Keren HUANG & Gentao JIN (IZCAS). Guizhou: 1♂, Luodian, 06-V-1983 (IZCAS).

**Distribution.** China: Beijing (Changping Dist. (Yu 2020), Chaoyang Dist.), Liaoning, Hebei, Shandong, Henan, Shaanxi, Gansu, Jiangsu, Shanghai, Zhejiang, Hubei, Hunan, Fujian, Taiwan, Guangdong, Hong Kong, Sichuan, Guizhou, Yunnan, Xizang; Korean Peninsula; Japan.

**Host plants.** *Tectona grandis* (Verbenaceae), *Coffea arabica* (Rubiaceae), *Paulownia tomentosa* (Paulowniaceae) (Gressitt 1951), *Ulmus* sp. (Ulmaceae), *Paulownia* sp. (Scrophulariaceae), *Lonicera japonica* (Caprifoliaceae), *Kalopanax pictus* (Araliaceae), *Randia spinosa* (Rubiaceae), *Citrus* sp. (Rutaceae), *Odina* sp. (Anacardiaceae), and *Firmiana simplex* (Sterculiaceae) (Hua 2002).

**Remarks.** The female (Figs 23A & 23C) from Hebei, Qinhuangdao is very similar to *X. grayii yaeyamanus* by the elytral coloration, compared with plate 34, figure 5 by Ohbayashi & Niisato (2007). The two males collected from Beijing were flying around *Fraxinus chinensis* Roxb.

#### A key to species of *Xylotrechus* from Beijing

1. Pronotum with ground color at least partly reddish..... 2
- . Pronotum with ground color entirely black or dark brown..... 4
2. Pronotum entirely bright red, except for anterior margin black; scutellum not covered by yellow pubescence; hind femora entirely black ..... 3
- . Pronotum partly red, only the middle part red, the anterior and posterior margins black and yellow; scutellum covered by yellow pubescence; hind femora partly black ..... *X. chinensis*
3. Pronotum asperate and with many short transverse ridges; apical portions of elytra edged externally, or banded on apical margins, with pale; frons with four carinae at middle ..... *X. rufilius*
- . Pronotum finely granulose-punctate; apical portions of elytra entirely black; frons with carinae not very distinct ..... *X. pyrrhoderus*
4. Elytra mostly covered by light colored pubescence, with black markings; each elytra with four black transverse stripes ..... *X. polyzonus*
- . Elytra mostly black, black brown or brown, with light colored pubescence..... 5
5. Elytra mostly black, with yellow pubescent transverse, oblique or curved stripes ..... 6
- . Elytra black brown or brown, with light colored pubescent stripes ..... 9
6. Elytra with ground color entirely black; the yellow pubescence before middle curved, turning back to basal direction near margin; the yellow pubescence behind middle trapezoid-shaped, the yellow part near suture only slightly wider than that near margin ..... 7
- . Elytral base not all black but with brown transverse stripe; the yellow pubescence before middle oblique, keeping the direction to apex near margin; the yellow pubescence behind middle triangle-shaped, the yellow part near suture three times wider than that near margin..... 8
7. Antennae black brown; Elytra with only two pubescent markings, elytral apex without yellow pubescence... ..... *X. robusticollis*

- . Antennae reddish brown; Elytra with four pubescent markings, elytral apex with yellow pubescence · *X. ibex*
- 8. Frontal carinae in form of a narrow “V” shape, with additional middle carinae between them; head entirely black ..... *X. pekingensis*
- . Frontal carinae in form of only one line; head mostly red, only partly black between antennal tubercles ..... *X. yanoi* (not distribute in Beijing)
- 9. Pronotum with a pair of pale parentheses-like marks on basal half (sometimes lacking), with four spots at four angles; antennae without distinct white pubescence ..... *X. hircus*
- . Pronotum with more light colored pubescence spots, at least with four spots at four angles; antennae with distinct white pubescence on some segments ..... 10
- 10. Prothorax with ten pale spots; scutellum whitish pubescent; each abdominal segment with two pubescent spots; elytra largely brownish ..... *X. grayii*
- . Prothorax with four small yellowish white spots near corners; scutellum black; abdominal segments with only basal two ventrites with pubescent spots, lacking on last two segments, hardly developed on the middle segment; elytra brown on basal two-thirds while black on apical one-third ..... *X. dominula*

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